CLAIMS

What is claimed is:

1. A chemically defined valency platform molecule comprising at least one high molecular weight polyethylene oxide group.

2. The valency platform molecule of claim 1, comprising at least 2 high molecular weight polyethylene oxide groups.

3. The valency platform molecule of claim 1, wherein the high molecular weight polyethylene oxide group has a molecular weight of greater than 22,000 Daltons.

4. The valency platform molecule of claim 1, wherein the high molecular weight polyethylene oxide group has a molecular weight of at least 40,000 Daltons.

5. The valency platform molecule of claim 1, wherein the high molecular weight polyethylene oxide group has the formula:

$$-(CH_2CH_2O)_n-$$

wherein n is greater than 500.

6. The valency platform molecule of claim 5, wherein n is greater than 600.

7. The valency platform molecule of claim 5, wherein n is greater than 700.

8. The valency platform molecule of claim 5, wherein n is greater than 800.

9. The valency platform molecule of claim 1, wherein the valency platform molecule comprises a core group and at least three arms wherein each arm comprises a terminus.

10. The valency platform molecule of claim 9, wherein the core group comprises a high molecular weight polyethylene oxide group.

11. The valency platform molecule of claim 9, wherein at least one of said arms comprises a high molecular weight polyethylene oxide group.

12. The valency platform molecule of claim 9, wherein the high molecular weight polyethylene oxide group is attached to the core or arm.

13. A composition comprising valency platform molecules of claim 1, wherein the molecules have a polydispersity less than 1.2; and wherein the average molecular weight of the high molecular weight polyethylene oxide groups in the composition is at least 18,000.

14. The valency platform molecule of claim 1, comprising at least three reactive conjugating groups selected from the group consisting of hydroxyl, thiol, isocyanate, isothiocyanate, amine, alkyl halide, alkylmercurial halide, aldehyde, ketone, carboxylic acid halide, α-halocarbonyl, α,β-unsaturated carbonyl, haloformate ester, carboxylic acid, carboxylic ester, carboxylic anhydride, O-acyl isourea, hydrazide, maleimide, imidate ester, sulfonate ester, sulfonyl halide, α,β-unsaturated sulfone, aminooxy, semicarbazide, and β-aminothiol.

15. The valency platform molecule of claim 1 comprising at least 3 aminooxy groups.

16. The valency platform molecule of claim 1 comprising at least 3 carbamate groups.

17. A conjugate of a valency platform molecule of claim 1 and a biologically active molecule.

18. The conjugate of claim 17, wherein the biologically active molecule is selected from the group consisting of poly(saccharides), poly(amino acids), nucleic acids and lipids.

19. The conjugate of claim 17, wherein the conjugate is a B cell toleragen.

20. The conjugate of claim 18, wherein the biologically active molecule comprises a nucleic acid or analog thereof, which specifically binds to an anti-double stranded DNA antibody.

21. The conjugate of claim 19, wherein the biologically active molecule is a β_2GPI domain 1 polypeptide or analog thereof.

22. The conjugate of claim 21, wherein the conjugate is effective for the treatment of antibody mediated thrombosis.

23. The conjugate of claim 18, wherein the biologically active molecule is an αGal epitope or analog thereof that specifically binds to an anti-αGal antibody.

24. A pharmaceutically acceptable composition comprising the conjugate of claim 17 and a pharmaceutically acceptable carrier.

25. A conjugate of a chemically defined valency platform molecule and a polypeptide comprising a β_2GPI domain 1 polypeptide, wherein the conjugate comprises at least one high molecular weight polyethylene oxide group.

26. The conjugate of claim 25, wherein the valency platform molecule comprises at least 3 aminooxy groups.

27. The conjugate of claim 25, wherein the valency platform molecule comprises at least 3 carbamate groups.

28. The conjugate of claim 25, wherein the high molecular weight polyethylene oxide group has a molecular weight greater than 22,000 Daltons.

29. The conjugate of claim 25, wherein the valency platform molecule comprises a core group and at least three arms, wherein each arm comprises a terminus.

30. The conjugate of claim 25, wherein the polypeptide specifically binds to a β_2GPI-dependent antiphospholipid antibody.

31. The conjugate of claim 30, wherein the polypeptide lacks a T cell epitope capable of activating T cells in an individual having β_2GPI dependent antiphospholipid antibodies.

32. The conjugate of claim 25, wherein the β_2GPI domain 1 polypeptide comprises at least five contiguous amino acids of Figure 19 (SEQ ID NO: 2).

33. The conjugate of claim 25, wherein the β_2GPI domain 1 polypeptide comprises amino acids Nos. 2-63 of SEQ ID NO: 2.

34. The conjugate of claim 25, wherein the conjugate is selected from the group consisting of compounds 200, 202, 203, and 205 shown in Figure 7 and compound 300 shown in Figure 16, wherein D1 in said structures is a polypeptide consisting of amino acids No. 2-63 of SEQ ID No: 2.